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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/661,637	09/13/2000	Abraham R. Mathews	1384.001 US1	7670

21186 7590 12/23/2004

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EXAMINER


SHIN, KYUNG H

ART UNIT	PAPER NUMBER
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2143

DATE MAILED: 12/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application N .	Applicant(s)	
	09/661,637	MATTHEWS, ABRAHAM R. 	
	Examiner	Art Unit	
	Kyung H Shin	2143	

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 August 2004.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 8/13/00 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This action is responding to application amended 8/4/2004 and filed 9/13/2000.
2. Claims 1-18 are pending. Claims 1, 6, 11, 17 are amended. Independent claims are 1, 6, 11.

Response to Arguments

3. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130 (b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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5. Claims 1-18 are provisionally rejected under the judicially created doctrine of double patenting over claims 1-19 of copending Application No. 09/952,520 (PGPUB: 20020152373). This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows:

09/952,520

Application: 09/661637

PGPUB: 2002/0152373

Exemplary claim 1

Exemplary claims 1, 2, 5

However, PGPUB: 2002/0152373 does not explicitly disclose a secure connection, even though it would have been obvious to one of ordinary skill in the networking art to have utilized a secure connection. Since PGPUB: 2002/0152373 does state utilizing tunneling for securing traffic over a network as well as encrypting and decrypting packets from one node to another node.

Claim Rejection - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 6, 11, 13 - 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alles et al. (U.S. Patent No. 6,466,976) in view of deBoer et al. (U.S. Patent No. 6,658,013) and further in view of Rao (U.S. Patent No. 6,674,756).

Regarding Claims 1, 6, 11 (currently amended), Alles discloses multiple processor utilizing a method and system of delivering security services. (see Alles col. 3, lines 24-28; col. 2, lines 37-43) But, Alles does not disclose a ring configuration. However, deBoer discloses:

a) connecting a plurality of processors in a ring configuration within a first processing system; (see deBoer col. 4, lines 22-37)

Alles does not disclose a secure connection between two ring configurations.

However, deBoer discloses:

b) establishing a secure connection between the processors in the ring configuration across an internet protocol (IP) connection to a second processing system to form a tunnel; (see deBoer col. 4, lines 22-37)

Alles discloses a method and system of delivering security services. (see Alles col. 2, lines 37-43) Alles discloses services processing at OSI layers at the network layer and higher (i.e. application layer). (see Alles col. 4, lines 50-53) But, Alles does not specifically disclose processing at the application layer. Additionally, Alles does not disclose a ring configuration for processors (a first processing system) or two ring configurations (a first and second processing system) connected by a tunnel (network path). However, deBoer does disclose a ring configuration for processors, two ring configurations connected by a tunnel (network path). And, Rao discloses services processing specifically at the application layer:

c) routing messages from the first processing system to the second processing system (see deBoer col. 4, lines 22-37: processing rings) providing [both router services and host] application layer (see Rao col. 21, lines 14-18: processing at the application layer) services for a customer [using] on a processor selected from the plurality of processors in the ring configuration and using the second processing system. (see Alles col. 2, lines 27-39; col. 3, lines 24-26; col. 2, lines 44-48). deBoer does not disclose service provider services (routing and hosting). But, Alles does disclose service provider services such as routing and hosting).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Alles to utilize a two ring configuration connected by a tunnel (network path) in the processing of subscriber services as taught by deBoer and to utilize application layer processing for the delivery of services as taught by Rao. One

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of ordinary skill in the art would be motivated to employ deBoer and Rao in order to provide expanded and updated features and services to subscribers. (see deBoer col. 4, lines 12-17: "*... provide a method and apparatus for enabling the survivability of interring traffic which is faster, more bandwidth efficient and better integrated ...*") (see Rao col. 2, lines 6-12: "*... fault-tolerant and efficient services that will accommodate the increase in the number and the variety of network traffic ... a private, secure environment for multiple sharing subscribers without the addition of a separate POP*")

Regarding Claim 13 (original), Alles discloses the usage of routing in communications. (see Alles col. 2, lines 21-25; col. 6, lines 52-57) But, Alles does not disclose the usage of virtual routers in communications. Rao discloses the method and system of claim 2, 7, 11, wherein for each of a plurality of customers, a virtual router is formed in the first processing system and is operably connected to a virtual router formed in the second system. (see Rao col. 2, lines 20-27)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Alles to utilize virtual router techniques for communications as taught by Rao. One of ordinary skill in the art would be motivated to employ Rao in order to provide strengthened services to accommodate increases in network traffic within a secure subscriber environment. (see Rao col. 2, lines 6-12)

Regarding Claim 14 (original), Alles discloses the usage of routing in communications. But, Alles does not disclose the usage of virtual routers in

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communications. Rao discloses the method and system of claim 2, 7, 11, wherein for each of a plurality of customers, a virtual private network is formed using a virtual router formed in the first processing system and operably connected to a virtual router formed in the second system. (see Rao col. 2, lines 20-27; col. 2, lines 35-37: virtual router, virtual private network)

Regarding Claim 15 (original), Alles disclose a plurality of processors with rotating connections. But, Alles does not disclose a ring configuration. However, deBoer discloses the method and system of claim 2, 7, 11, wherein the connecting a plurality of processors in a ring configuration. (see deBoer col. 4, lines 22-37)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Alles to utilize a ring configuration for the connected rotating plurality of processor as taught by deBoer. One of ordinary skill in the art would be motivated to employ deBoer in order to provide expanded and updated features and services to subscribers. (see deBoer col. 4, lines 12-17)

Regarding Claim 16 (original), Alles discloses the system of claim 11, further comprising: a services management system that provides changeable provisioning of processor capacity among a plurality of customers. (see col. 4, lines 3-6)

Regarding Claim 17 (currently amended), Alles discloses services processing at the OSI layers higher than the network layer (i.e. application layer). (see Alles col. 4, lines

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50-53) Alles discloses firewall protection (see Alles col. 7, lines 52-61) for each of a plurality of customers. But, Alles does not specifically disclose processing of services at the application layer. Rao discloses the system of claim 11, further comprising: a services management system that provides processing at the application layer processing. (see Rao col. 21, lines 14-18)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Alles to utilize application layer processing for services as taught by Rao. One of ordinary skill in the art would be motivated to employ Rao in order to provide strengthened services to accommodate increases in network traffic within a secure subscriber environment.

Regarding Claim 18 (original), Alles discloses the system of claim 11, further comprising: a services management system that provides provisioning of processor capacity among a plurality of customers, wherein each customer's resources are isolated from those of all the other customers. (see col. 3, lines 43-47; col. 3, lines 58-60)

8. Claims 2 - 5, 7 - 10, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alles-DeBoer-Rao and further in view of Garner (U.S. Patent No. 6,243,580).

Regarding Claims 2, 7, 12 (original), Alles discloses one or more processing processor. (see Alles col. 3, lines 24-28: initial processing by processing group (type))
Alles does not disclose one or more control processors or one or more access

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processors. However, Garner discloses the method and system of claim 1, 6, 11, wherein, to support a communications network, the plurality of processors groups or types includes one or more control processors and one or more access processors. (see Garner col. 5, lines 27-30; col. 58, lines 36-40: control and access processors)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Alles to utilize one or more control processors and access processors in the processing of services as taught by Garner. One of ordinary skill in the art would be motivated to employ Garner in order to provide expanded and updated features and services to subscribers. (see Garner col. 3, lines 63-67: "... *System Engineering ... subsystems, equipment and software which is needed to expand capacity to meet increases in traffic demands and to provide new features and services which become marketable to subscribers ...*")

Regarding Claims 3, 8 (original), Alles discloses the usage of routing in communications. (see Alles col. 2, lines 21-25; col. 6, lines 52-57) But, Alles does not disclose the usage of virtual routers in communications. Rao discloses the method and system of claim 2, 7, 11, wherein for each of a plurality of customers, a virtual router is formed in the first processing system and is operably connected to a virtual router formed in the second system. (see Rao col. 2, lines 20-27: virtual router)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Alles to utilize virtual router techniques for communications as taught by Rao. One of ordinary skill in the art would be motivated to

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employ Rao in order to provide strengthened services to accommodate increases in network traffic within a secure subscriber environment.

Regarding Claims 4, 9 (original), Alles discloses the usage of routing in communications. (see Alles col. 2, lines 21-25; col. 6, lines 52-57) But, Alles does not disclose the usage of virtual routers in communications. Rao discloses the method and system of claim 2, 7, 11, wherein for each of a plurality of customers, a virtual private network is formed using a virtual router formed in the first processing system and operably connected to a virtual router formed in the second system. (see Rao col. 2, lines 20-27; col. 2, lines 35-37: virtual router, virtual private network)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Alles to utilize virtual router techniques for communications as taught by Rao. One of ordinary skill in the art would be motivated to employ Rao in order to provide strengthened services to accommodate increases in network traffic within a secure subscriber environment.

Regarding Claims 5, 10 (original), Alles discloses the method and system of claim 2, 7, 11, wherein the connecting a plurality of processors in the ring configuration includes forming dual counter rotating ring connections, each connecting to each of the plurality of processors. (see col. 3, lines 30-33)

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Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyung H Shin whose telephone number is (571) 272-3920. The examiner can normally be reached on 9 am - 7 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KHS

Kyung H Shin
Patent Examiner
Art Unit 2143

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Dec. 7, 2004

William C. Vaughn Jr.
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